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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,765	02/25/2002	Rajesh S. Pazhyannur	CE09105R	4402

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EXAMINER
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NGUYEN, TOAN D

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/082,765

Applicant(s)

PAZHYANNUR ET AL

Examiner

Toan D Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sen et al. (U.S. 6,556,556 B1) in view of McDermott (EP 1175034 A2).

For claims 1 and 4-6, Sen et al. disclose method and system for limiting data packet transmission within a digital mobile telephone communication network by discarding unsuccessfully transmitted radio link protocol frames, comprising the steps of:

(a) receiving plurality of higher-layer packets (figure 2, reference 21, col. 3 lines 23-26);

(d) multiplexing higher-layer packets (figure 2, reference 21) onto a lower-layer packet (figure 2, reference 23) (col. 3 lines 25-30); and

(e) transmitting the lower-layer packet (figure 2, reference 22, col. 3 lines 25-27).

However, Sen et al. does not disclose:

(b) determining an error rate of a transmission;

(c) determining a lower-layer packet size based on the error rate.

(d) the lower layer packet having size as determined in step (C).

In an analogous art, McDermott discloses:

(b) determining an error rate of a transmission (figure 5A, reference 120, page 7 lines 51-53);

(c) determining a lower-layer packet size based on the error rate (page 2, col. 2 lines 18-21 and page 8 lines 9-13); and

(d) the lower layer packet having size as determined in step (C) (page 4, col. 6 lines 39-44).

McDermott discloses further wherein the step of determining the error rate comprises the step of determining a bit error rate (BER) (page 2, col. 2 lines 18-21 and page 8 lines 9-13 as set forth in claim 4); wherein the step of determining the lower-layer packet size comprises the step of determining an optimal number of higher-layer packets that can be multiplexed onto a single lower-layer packet (figure 5B, col. 8 lines 9-19 as set forth in claim 5); wherein the step of multiplexing the higher-layer packets onto the lower-layer packet comprises the step of multiplexing UDP/IP packets onto a single PPP packet utilizing PPPmuxing techniques (page 4, col. 6 lines 39-44 as set forth in claim 6).

One skilled in the art would have recognized an error rate of a transmission to use the teachings of McDermott in the system of Sen et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the error rate of a transmission as taught by McDermott in Sen et al.'s system with the motivation being to provide a system that transmits image data or any other type of data in packets by RF carrier where the packet size is adjusted responsive to bit error rate (page 5, col. 7 lines 7-10).

For claim 2, Sen et al. disclose wherein the step of receiving the plurality of higher layer packets comprises the step of receiving the plurality of higher-layer packets from a plurality of users (figure 1, references 11a-c, col. 2 lines 60-64).

For claim 3, Sen et al. disclose wherein the step of receiving the plurality of higherlayer packets comprises the step of receiving a plurality of higher-layer TCP/IP packets (col. 3 lines 23-25).

Art Unit: 2665

For claims 7 and 9-10, Sen et al. disclose method and system for limiting data packet transmission within a digital mobile telephone communication network by discarding unsuccessfully transmitted radio link protocol frames, comprising the steps of:

receiving a plurality of UDP/IP packets (figure 2, reference 21) from a plurality of users (figure 1, references 11a-c, col. 3 lines 23-26); and

multiplexing the plurality of UDP/IP packets onto a PPP packet (col. 3 lines 25-30); and  
transmitting the PPP packet (figure 2, reference 22, col. 3 lines 25-27).

However, Sen et al. do not disclose:

determining an error rate;

determining a PPP packet size based on the error rate; and

the plurality of UDP/IP packets size equal to the PPP packet size.

In an analogous art, McDermott discloses:

determining an error rate (figure 5A, reference 120, page 7 lines 51-53);

determining a PPP packet size based on the error rate (page 2, col. 2 lines 18-21 and page 8 lines 9-13); and

the plurality of UDP/IP packets size equal to the PPP packet size (page 4, col. 6 lines 39-44).

McDermott discloses further wherein the step of determining the error rate comprises the step of determining a bit error rate (BER) (page 2, col. 2 lines 18-21 and page 8 lines 9-13 as set forth in claim 9); wherein the step of determining the PPP packet size comprises the step of determining an optimal number of UDP/IP packets that can be multiplexed (reference 94) onto a single PPP packet (figure 4, col. 6 lines 39-44 as set forth in claim 10); wherein the step of multiplexing the plurality of UDP/IP packets onto the PPP packet comprises the step of utilizing PPPmuxing techniques to multiplex the plurality of UDP/IP packets onto the PPP packet (page 4, col. 6 lines 39-44 as set forth in claim 11).

One skilled in the art would have recognized an error rate of a transmission to use the teachings of McDermott in the system of Sen et al.. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the error rate of a transmission as taught by McDermott in Sen et al.'s system with the motivation being to provide a system that transmits image data or any other type of data in packets by RF carrier where the packet size is adjusted responsive to bit error rate (page 7 lines 7-10).

For claim 8, Sen et al. disclose wherein the step of receiving the plurality of UDP/IP packets comprises the step of receiving the plurality of UDP/IP packets from a plurality of remote or mobile users (figure 1, reference 11a-c, col. 3 lines 23-26).

For claims 12-14, Sen et al. disclose method and system for limiting data packet transmission within a digital mobile telephone communication network by discarding unsuccessfully transmitted radio link protocol frames, comprising the steps of:

a plurality of higher layer packet as an input (figure 2, reference 21, col. 3 lines 23-26); and

multiplexing the plurality of higher-layer packets onto a lower-layer packet (figure 2, reference 23) (col. 3 lines 25-30).

However, Sen et al. does not disclose: a packet error estimator outputting a transmission error rate; and a multiplexer having the transmission error rate as an input, determining a lower-layer packet size based on the transmission error rate; wherein the lower-layer packet has a size equal to the lower-layer packet size. In an analogous art, McDermott discloses:

a packet error estimator outputting a transmission error rate (figure 5A, reference 120, page 5, col. 7 line 53); and

a multiplexer (figure 4, reference 94) having the transmission error rate as an input (page 4, col. 6 lines 30-44), determining a lower-layer packet size based on the transmission error rate (page 2, col. 2 lines 18-21 and page 8 lines 9-13); wherein the lower-layer packet has a size equal to the lower-layer packet size (page 4, col. 6 lines 39-44). McDermott discloses further discloses wherein the multiplexer is a PPP

Art Unit: 2665

multiplexer performing PPPmuxing (figure 4, reference 94, page 4, col. 6 lines 30-44 as set forth in claim 13); wherein the transmission error rate is bit error rate (BER) (page 2, col. 2 lines 18-21 and page 8 lines 9-13 as set forth in claim 14). One skilled in the art would have recognized a packet error estimator outputting a transmission error rate use the teachings of McDermott in the system of Sen et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the error rate of a transmission as taught by McDermott in Sen et al.'s system with the motivation being to provide a system that transmits image data or any other type of data in packets by RF carrier where the packet size is adjusted responsive to bit error rate (page 7 lines 7-10).

For claim 15, Sen et al. disclose wherein the higher-layer packets comprise UDP/IP packets (figure 2, reference 21, col. 3 lines 23-27).

For claim 16, Sen et al. disclose wherein the lower-layer packet comprises a PPP packet (figure 2, reference 22, col. 3 lines 23-27).

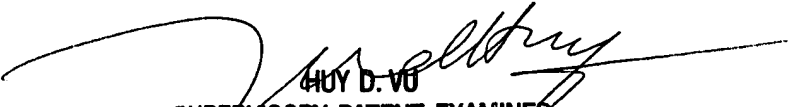
#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 703-305-0140. The examiner can normally be reached on Monday- Friday (7:00AM-4:30PM). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 703-308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314. Any inquiry if a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

TN  
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